

Bruce Hamilton, Acting Chairman

Jessie H. Roberson

Daniel J. Santos

Joyce L. Connery

**DEFENSE NUCLEAR FACILITIES
SAFETY BOARD**

Washington, DC 20004-2901



The Honorable James Richard Perry
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1000

Dear Secretary Perry:

The Defense Nuclear Facilities Safety Board completed a review of the safety basis for Idaho National Laboratory's Integrated Waste Treatment Unit (IWTU) in October 2017. The Board's review team identified the following weaknesses in IWTU's safety basis:

- Several hazards are designated as standard industrial hazards and are screened from further analysis in IWTU's safety basis. As a result, IWTU's safety basis does not adequately analyze some events, such as a carbon dust explosion in the fuel storage silos, and oxygen displacement in the process areas. These types of events may require identification of safety-significant controls for protection of workers.
- IWTU's fire hazard analysis relies on the implementation of site-wide safety management programs to screen out hazards during the unmitigated analysis. This is inconsistent with the Department of Energy's documented requirements. Consequently, IWTU's safety basis does not analyze several possible accident events, such as a carbon dust fire in the additive storage room. A carbon dust fire could spread to the adjacent mechanical equipment area, potentially damaging the safety-significant components in that space.

IWTU has implemented safety management programs and non-credited safety controls that are intended to address these potential hazards within the short expected operational life of the facility but has not sufficiently documented the hazards and the controls in the safety basis. Such documentation should be completed regardless of the expected operational life of a facility.

Per 42 U.S.C. 2286a(a), the Board also advises DOE that it might be useful to incorporate this information into DOE's formal lessons learned program such that personnel at sites across the complex are mindful of the need for proper documentation of screened items and reliance on site-wide safety management programs within a safety basis.

Yours truly,

Bruce Hamilton
Acting Chairman

c: Mr. Matthew B. Moury
Mr. Joe Olencz

AFFIRMATION OF BOARD VOTING RECORD

SUBJECT: IWTU Safety Basis Review

Doc Control#2018-100-015


The Board, with Board Member(s) Bruce Hamilton, Joyce L. Connery *approving*, Board Member(s) Daniel J. Santos *disapproving*, Board Member(s) Jessie H. Roberson *abstaining*, and Board Member(s) none *not participating*, has voted to approve the above document on March 20, 2018.

The votes were recorded as:

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIPATING*	COMMENT	DATE
Bruce Hamilton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03/15/18
Jessie H. Roberson	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03/20/18
Daniel J. Santos	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03/15/18
Joyce L. Connery	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03/15/18

*Reason for Not Participating:

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Board Members.



 Executive Secretary to the Board

Attachments:

1. Voting Summary
2. Board Member Vote Sheets

cc: Board Members
 OGC
 OGM Records Officer
 OTD

**DEFENSE NUCLEAR FACILITIES SAFETY BOARD
NOTATIONAL VOTE RESPONSE SHEET**

FROM: Bruce Hamilton

SUBJECT: IWTU Safety Basis Review

Doc Control#2018-100-015

Approved X Disapproved Abstain

Recusal – Not Participating

COMMENTS: Below Attached None X

Bruce Hamilton

Bruce Hamilton

 03/15/2018

Date

Member voted by e-mail dated March 15, 2018.

DEFENSE NUCLEAR FACILITIES SAFETY BOARD
NOTATIONAL VOTE RESPONSE SHEET

FROM: Jessie Roberson

SUBJECT: IWTU Safety Basis Review

Doc Control#2018-100-015

Approved ~~_____~~ **Disapproved** _____ **Abstain** ~~_____~~
Recusal – Not Participating _____

COMMENTS: **Below** _____ **Attached** _____ **None** ~~_____~~

Jessie Roberson ✓

Jessie Roberson
March 20, 2018

Date

**DEFENSE NUCLEAR FACILITIES SAFETY BOARD
NOTATIONAL VOTE RESPONSE SHEET**

FROM: Daniel J. Santos


SUBJECT: IWTU Safety Basis Review

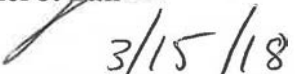
Doc Control#2018-100-015

Approved _____ Disapproved X Abstain _____

Recusal – Not Participating _____

COMMENTS: Below _____ Attached _____ None X



Daniel J. Santos


Date

DEFENSE NUCLEAR FACILITIES SAFETY BOARD
NOTATIONAL VOTE RESPONSE SHEET

FROM: Joyce Connery

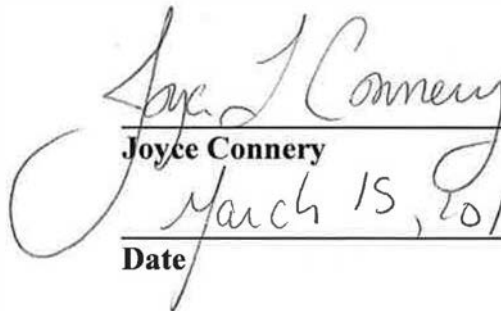
SUBJECT: IWTU Safety Basis Review

Doc Control#2018-100-015

Approved **Disapproved** **Abstain**

Recusal – Not Participating

COMMENTS: **Below** **Attached** **None**



Joyce Connery
March 15, 2018

Date